## **SERVICE MANUAL**

### STEREO RECEIVER



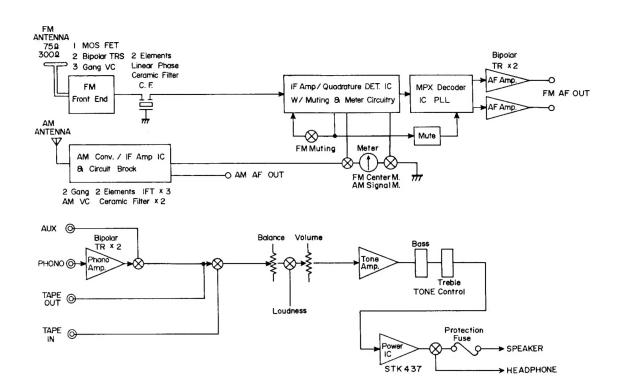


#### SPECIFICATIONS (Nominal)

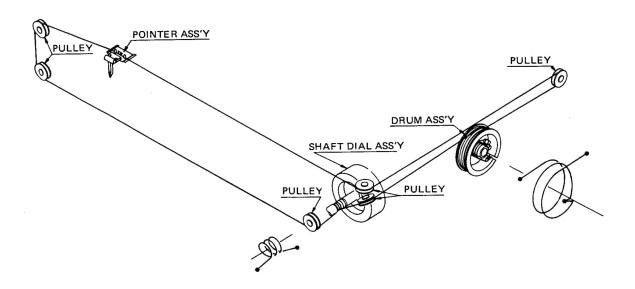
FM TUNER SECTION		AUDIO SECTION	
Frequency Range	88 MHz to 108 MHz	Continuous Power Output (at 8 ohm)	
Usable Sensitivity (IHF)	4.5 μV	Both Channel Driven at 1 kHz	10 W + 10 W
Image Rejection (98 MHz)	41 dB	Harmonic Distortion at Rated Power	1 %
IF Rejection (98 MHz)	65 dB	Frequency Response	40 Hz - 30 kHz
Signal to Noise Ratio	57 dB	Input Sensitivity/Impedance	
Harmonic Distortion (100 % mod.)		PHONO	2.7 mV/30 kohm
Mono	0.3 %	TAPE	340 mV/70 kohm
Stereo	1.5 %	MIC	5 mV/50 kohm
Capture Ratio	1.5 dB	Tone Control Response	
Stereo Separation (at 1 kHz)	35 dB	Bass Control at 100 Hz	+11 dB, -9 dB
AM TUNER SECTION		Treble Control at 10 kHz	+9 dB, −11 dB
Frequency Range	535 kHz to 1,605 kHz	Loudness Control at -30 dB Position	
Usable Sensitivity (S/N 20 dB)	300 μV	at 100 Hz	+9 dB
Image Rejection (1,000 kHz)	35 dB	at 10 kHz	+9 dB
IF Rejection (1,000 kHz)	35 dB	GENERAL	
Selectivity at ±10 kHz	30 dB	Power Requirement	AC:110/120/220/240
Signal to Noise Ratio	40 dB		50/60 Hz
		Power Consumption	60 W

-Specifications are subject to change without notice.-

#### FUNCTIONAL BLOCK DIAGRAM



## **DIAL CORD STRINGING**



**NOTE:** Check to see that the dial cord is correctly strung by turning the dial.

#### AM-FM RF/IF AMP MPX ADJUSTMENT

#### **AM ADJUSTMENT**

For Alignment: Maintain generator output as low as possible for suitable indication.

	Adjusting	Conne	ection	Position of	0.100	V.T.V.M.
Step	circuit	Input	Output	tuning dial	Adjustment	Oscilloscope
1	1F	Connect 455 kHz sweep generator to VC 4.	Connect oscilloscope to test point TP 4.	Near max, capacity of VC at position of non interference	AM 1st 9-21310 AM DET 9-21291	455 kHz
2	RF	Connect AM generator to EXT AM ANT and GND terminals. Set to 600 kHz, Modu- late with 30 %, 1 kHz.	Connect oscilloscope and AC. V.T.V.M. to Record output	600 kHz	AM ANT 9-25050 AM OSC 9-20851	Max,
3		Change frequency to 1400 kHz.		1400 kHz	TC4 TC5	Max.
4	Repeat adjustm	nents.	<u> </u>			

Variable capacitor completely closed
 Set the dial pointer to very left line dial scale.
 Connect sweep generator, SG,V.T.V.M. and oscilloscope.

4. Function switch to "AM"5. Use a screwdriver with plastic grip for all adjustment.

#### **FM ADJUSTMENT**

Step	Adjusting	Connection	on	Position of		V.T.V.M.
steb	circuit	Input	Output	Tuning dial	Adjustment	Oscilloscope
1	IF	Connect sweep 10.7 MHz generator to test point	Connect oscilloscope to test point TP 2.	Near max, capa- city of VC.at	FM IFT In FRONT END	10.7 MHz
2	Quadrature Detector	VC 2 through 0.01 μF.	Connect oscilloscope to test point TP 1.	position of non Interference	FM QUADRA TURE COIL 9-21320	1
3	RF	Connect FM RF generator through two 120-ohm resistors to FM ANT screw terminals. Set generator to 90 MHz, modulate with 400 Hz to provide ±75 kHz deviation. Set generator output attenuator as low as possible.	Connect V.T.V.M. to Record output	90 MHz	LA LR	Max.
4		Change generator setting to 106 MHz.	Connect V.T.V.M. to Record output.	106 MHz	TCA TCR	Max.

Variable capacitor compeltely closed Set the dial pointer to very left line of dial scale. Connect sweep generator, FM SG, V.T.V.M. and oscilloscope. FM ANT input impedance is 300 ohm.

4. Function switch to "FM"5. Use a screwdriver with plastic grip for all adjustments.

#### **FM MPX ADJUSTMENT**

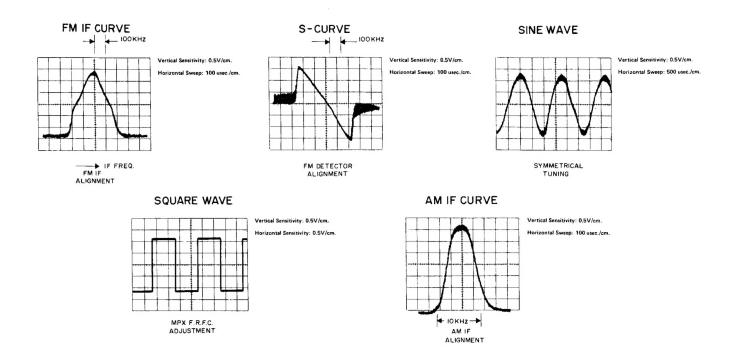
Chan	Adjusting	Connection	on	Position of		
Step	circuit	Input	Output	tuning dial	Adjus	tment
1	PLL IC FO (19 kHz) Adjustment	None	Connect Frequency counter or synchroscope to TP 3.		Adjust VR 01 (5) frequency counts indicate 19 kHz	k-B) so that er or synchroscope
2	FM STEREO	As above Steps 3,4 except modulation Modulate LEFT channel ±67.5 kHz — 400 Hz audio and ±7.5 kHz — 19 kHz	Connect V.T.V.M. to output terminal (R channel).	Near max, capa- city of VC. at position of non interference	VR 02 (1k-B)	V.T.V.M.
	Separation	pilot carrier. As above except modulate RIGHT Channel.	Connect V.T.V.M. to output terminal (L channel).	11110110100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Min.
3	Repeat steps 1	,2. Set at position with max. chann	el separation.			

Variable capacitor completely closed
 Connect FM stereo SG and V.T.V.M.

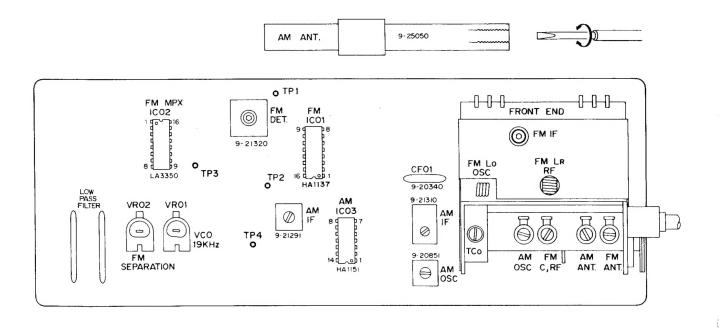
3. Function switch to "FM"4. Use a screwdriver with plastic grip for all adjustments.

### **ALIGNMENT WAVE FORMS**

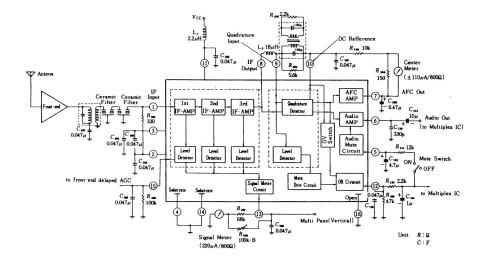
#### WITH OSCILLOSCOPE TIME BASE SETTINGS



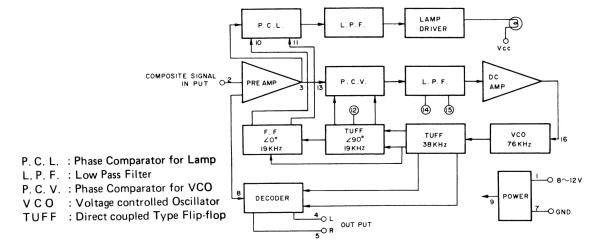
### AM-FM RF/IF MPX BOARD LAYOUT



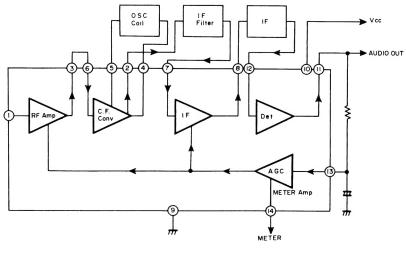
#### FM IF IC HA1137 SIGNAL FLOW



### FM MPX IC LA3350 SIGNAL FLOW

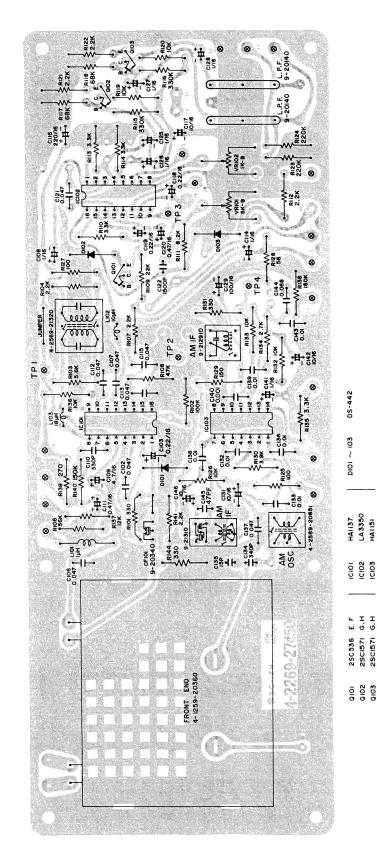


### AM RF IF IC HA1151 SIGNAL FLOW



### AM-FM RF/IF MPX P.C.BOARD

(BOTTOM VIEW)



_		Е	0.5V
=	GES	C	0.5V
HAIISI	OLTA	В	1.1V 0.5V 0.5V
1003	TRANSISTOR DC VOLTAGES	DEVICE	2SC536
2SCI571 G.H	FRANSIS	OL NO.	201
28CI57		SYMBOL NO.	ğ

TRANSISTOR DC VOLTAGES OL NO. DEVICE B C E 01 2SC536 1.1V 0.5V 0.5V 02 2SC1571 2.0V 6.0V 1.4V 03 2SC1571 2.0V 6.0V 1.4V  OL NO. DEVICE 1 2 3 4 5 01 HA1137 2.1V 2.1V 2.1V 2.2V 0V 1.5V							
STOR DC VOLTAGES           DEVICE         B         C         E           2SC536         1.1V         0.5V         0.5V           2SC1571         2.0V         6.0V         1.4V           2SC1571         2.0V         6.0V         1.4V	1.5V		2.2V	2.1V	2.1V	HA1137	1001
STOR DC VOLTAGES   DEVICE   B   C   E   2SC536   1.1V   0.5V   0.5V   2SC1571   2.0V   6.0V   1.4V	2		က	2	-	DEVICE	SYMBOL NO.
STOR DC VOLTAGES	N NCM	IC PI					
STOR DC VOLTAGES   DEVICE   B   C			7	6.00	2.0V	2SC1571	003
STOR DC V DEVICE 2SC536			1.4V	6.0V	2.0V	2SC1571	Q02
FRANSISTOR DC VOLTAGES  DL NO.   DEVICE   B   C   E			0.5V	0.5V	1.1V	2SC536	001
FRANSISTOR DC VOLTAGES			ш	ပ	В	DEVICE	SYMBOL NO.
				GES	OLTA	TOR DC V	TRANSIS

0

4.6V

10

5.6V

5.6V

5.9V

9.6V

1.0V

LA3350 HA1151

1C01 1C03

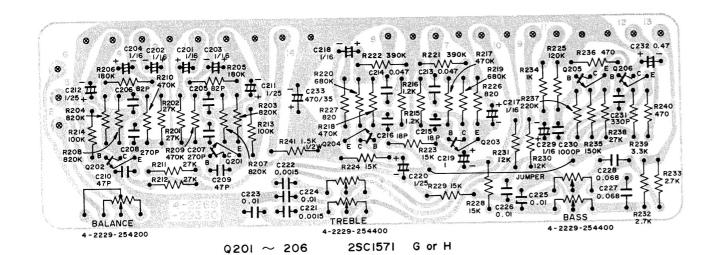
I NUMBERS DC VOLTAGES

TRANSISTOR FRONT VIEW 2SC536 2SC1571



### PRE TONE CONTROL P.C.BOARD

(BOTTOM VIEW)





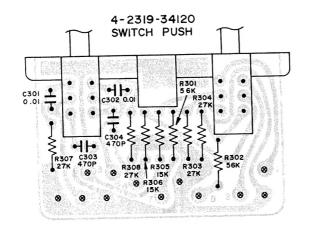
#### TRANSISTOR FRONT VIEW

2SC1571

TOR DC \	/OLTA	GES	
DEVICE	В	С	E
2SC1571	0.58V	6.6V	0V
2SC1571	1.3V	7.6V	V8.0
2SC1571	0.7V	2.8V	0.2V
2SC1571	2.8V	7.5V	2.2V
	DEVICE 2SC1571 2SC1571 2SC1571	DEVICE B 2SC1571 0.58V	2SC1571 0.58V 6.6V 2SC1571 1.3V 7.6V 2SC1571 0.7V 2.8V

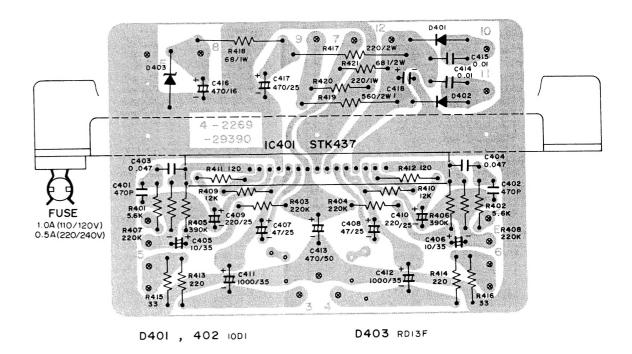
### **SWITCH P.C.BOARD**

(BOTTOM VIEW)



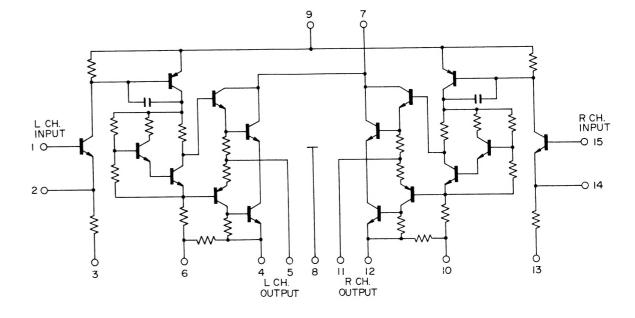
### MAIN AMP & POWER SUPPLY P.C.BOARD

(BOTTOM VIEW)



				IC	PINN	IUMBE	RS DO	VOLT	AGES							
SYMBOL NO.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
ICO1	STK437	9.2V	9.8V	0V	OV	18.2V	3,8V	36.9V	0V	35.7V	3,8V	18.2V	OV	0V	8.8V	9.2V

### MAIN AMP IC STK437 EQUIVALENT CIRCUIT



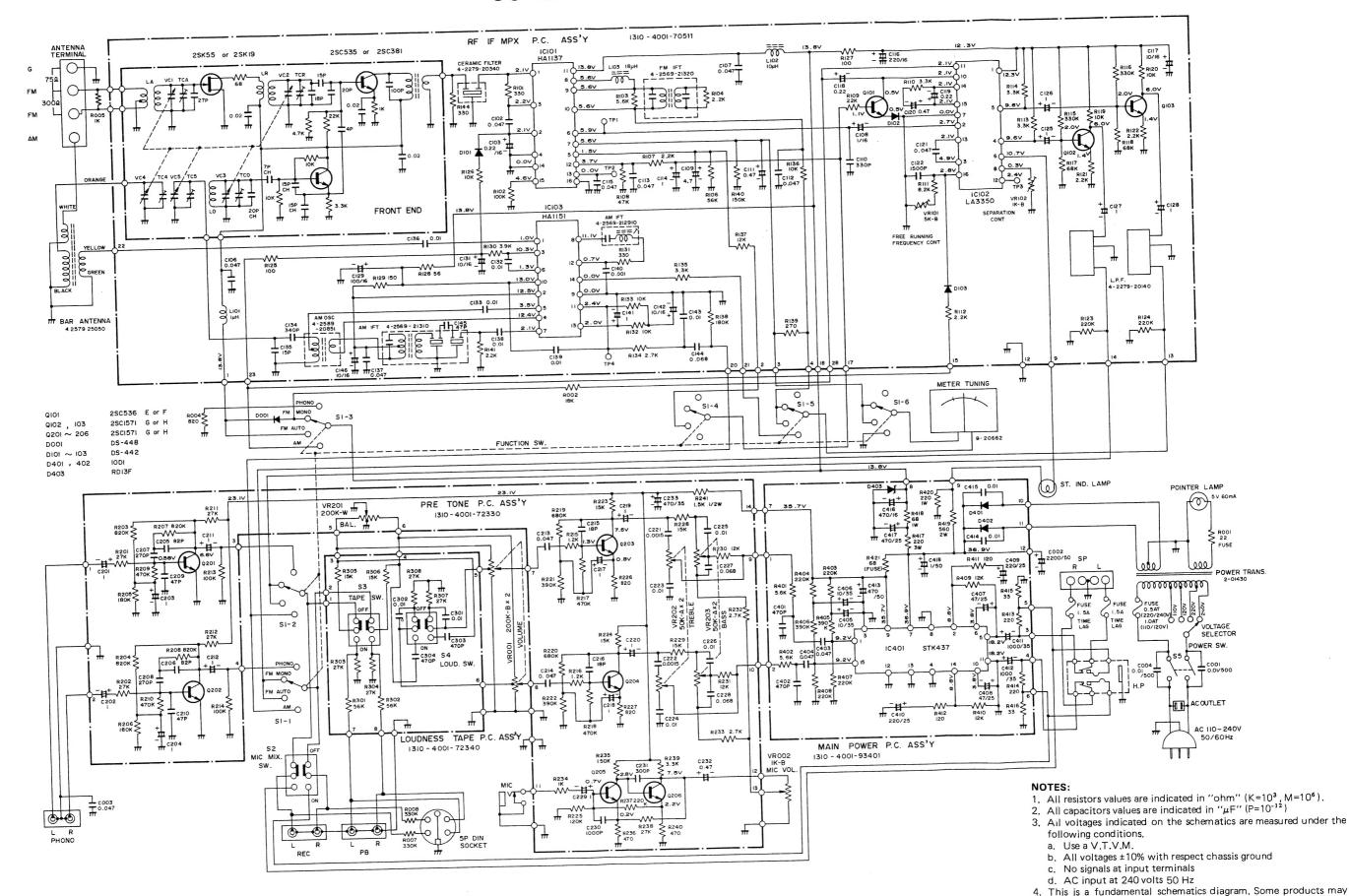
## PARTS LIST

Ref.No.	Parts Number	Description	Q'ty	Ref.	No.	Parts Number		Descrip	tion		Q'ty
	RF IF MPX P.C.I	B. ASSY			F	RESISTORS	<u> </u>				
VR01 VR02 L01 L02 L03 CF01	131 0 4001 70512 4 1252 00060 4 2229 22842 4 2229 24210 4 2569 21291 4 2569 21310 4 2569 21320 4 2589 20851 4 2539 20120 4 2539 20370 4 2539 20380 4 2279 20340 4 2279 20140	Variable Resistor 5k-B Variable Resistor 1k-B IF Trans. AM IF Trans. AM IF Trans. FM OSC Coil, AM IF Trap 10 \( \mu \)H \( \pm \)10% 18 \( \mu \)H \( \pm \)5% Ceramic Filter	1 1 1 1 1 1 1 1 1 1 1 1 2	R13 R15 R17 R19 R21 R23 R25 R26 R27 R28 R29 R30	,16 ,18 ,20 ,22 ,24	R2EDSJ332A R2EDSJ334A R2EDSJ683A R2EDSJ103A R2EDSJ222A R2EDSJ101A R2EDSJ101A R2EDSJ101A R2EDSJ101A R2EDSJ560A R2EDSJ560A R2EDSJ550A R2EDSJ331A	Carbon Carbon Carbon Carbon Carbon Carbon Carbon Carbon Carbon Carbon Carbon Carbon	3.3k 330k 68k 10k 2.2k 220k 100 10k 100 56 150 3.9k 330	1/4W 1/4W 1/4W 1/4W 1/4W 1/4W 1/4W 1/4W	±5% ±5% ±5% ±5% ±5% ±5% ±5% ±5% ±5% ±5%	2 2 2 2 2 2 2 1 1 1 1 1 1
	CAPACITORS			R32 R34 R35		R2EDSJ103A R2EDSJ272A R2EDSJ332A	Carbon Carbon Carbon	10k 2.7k 3.3k	1/4W 1/4W 1/4W	±5% ±5% ±5%	1 1
C02 C03 C06,07 C08 C09 C10 C11 C12,13 C14 C15 C16 C17 C18,19 C20 C21 C22 C25,26 27,28 C29 C31 C32,33 C34 C35 C36 C37 C38,39 C40 C41 C42 C43 C44 C45 C46 C45 C46	C1CRE-105A C1HYSZ473A C1CRE-227A C1CRE-106A C1CUEX224A C1CUEX474A C1HFRM473A C1HSEJ152A C1CUEX105A C1CRE-106A C1HFRM103A C1HSEJ341A C1HCSJ150WK C1HFRM103A C1HCSJ150WK	Ceramic 0.047 $\mu$ F 50V +80, $-20\%$ Alsicon 0.22 $\mu$ F 16V +40, $-20\%$ Ceramic 0.047 $\mu$ F 50V +80, $-20\%$ Alsicon 1 $\mu$ F 16V +40, $-20\%$ Electrolytic 4.7 $\mu$ F 16V Ceramic 330 pF 50V ±10% Alsicon 0.47 $\mu$ F 16V +40, $-20\%$ Ceramic 0.047 $\mu$ F 50V +80, $-20\%$ Electrolytic 1 $\mu$ F 16V Ceramic 0.047 $\mu$ F 50V +80, $-20\%$ Electrolytic 220 $\mu$ F 16V Ceramic 0.047 $\mu$ F 50V +80, $-20\%$ Electrolytic 10 $\mu$ F 16V Alsicon 0.22 $\mu$ F 16V +40, $-20\%$ Mylar 0.047 $\mu$ F 50V ±20% Styrol 1500 pF 50V ±5% Alsicon 1 $\mu$ F 16V +40, $-20\%$ Electrolytic 100 $\mu$ F 16V Electrolytic 100 $\mu$ F 16V Mylar 0.01 $\mu$ F 50V ±20% Styrol 340 pF 50V ±5% Ceramic 15 pF 50V ±5% Mylar 0.01 $\mu$ F 50V ±20% Ceramic 0.047 $\mu$ F 50V ±20% Ceramic 0.047 $\mu$ F 50V ±20% Ceramic 0.047 $\mu$ F 50V ±20% Ceramic 0.010 $\mu$ F 50V ±20% Mylar 0.01 $\mu$ F 50V ±20% Ceramic 0.010 $\mu$ F 50V ±20%	1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 1 1 2 1 1 1 1 1 1 2 1 1 1 1 1 1 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	R36 R37 R38 R39 R40 R41 R44	3	R2EDSJ103A R2EDSJ123A R2EDSJ184A R2EDSJ271A R2EDSJ154A R2EDSJ222A R2EDSJ331A	Carbon Carbon Carbon Carbon Carbon Carbon	10k 12k 180k 270 150k 2.2k 330	1/4W 1/4W 1/4W 1/4W 1/4W 1/4W	±5% ±5% ±5% ±5% ±5% ±5%	1 1 1 1 1 1 1 1 1
	SEMICONDUCTOR	RS	1								
D01,02 03 IC01 IC02 IC03 Q01 Q02,03	IKK-HA1137 206 50743 35012 IKK-HA1151 203 55100 53640	IC HA1137 IC LA3350 PLL FOR MPX IC HA1151 TR 2SC536D	3 1 1 1 1 1 2								
	RESISTORS										
R01 R02 R03 R04 R06 R07 R08 R09 R10 R11 R12	R2EDSJ331A R2EDSJ104A R2EDSJ562A R2EDSJ563A R2EDSJ222A R2EDSJ473A R2EDSJ223A R2EDSJ233A R2EDSJ223A R2EDSJ223A R2EDSJ222A	Carbon         330         1/4W         ±5%           Carbon         100k         1/4W         ±5%           Carbon         5.6k         1/4W         ±5%           Carbon         2.2k         1/4W         ±5%           Carbon         56k         1/4W         ±5%           Carbon         2.2k         1/4W         ±5%           Carbon         47k         1/4W         ±5%           Carbon         2.2k         1/4W         ±5%           Carbon         3.3k         1/4W         ±5%           Carbon         8.2k         1/4W         ±5%           Carbon         2.2k         1/4W         ±5%	1 1 1 1 1 1 1 1 1 1 1								

## PARTS LIST

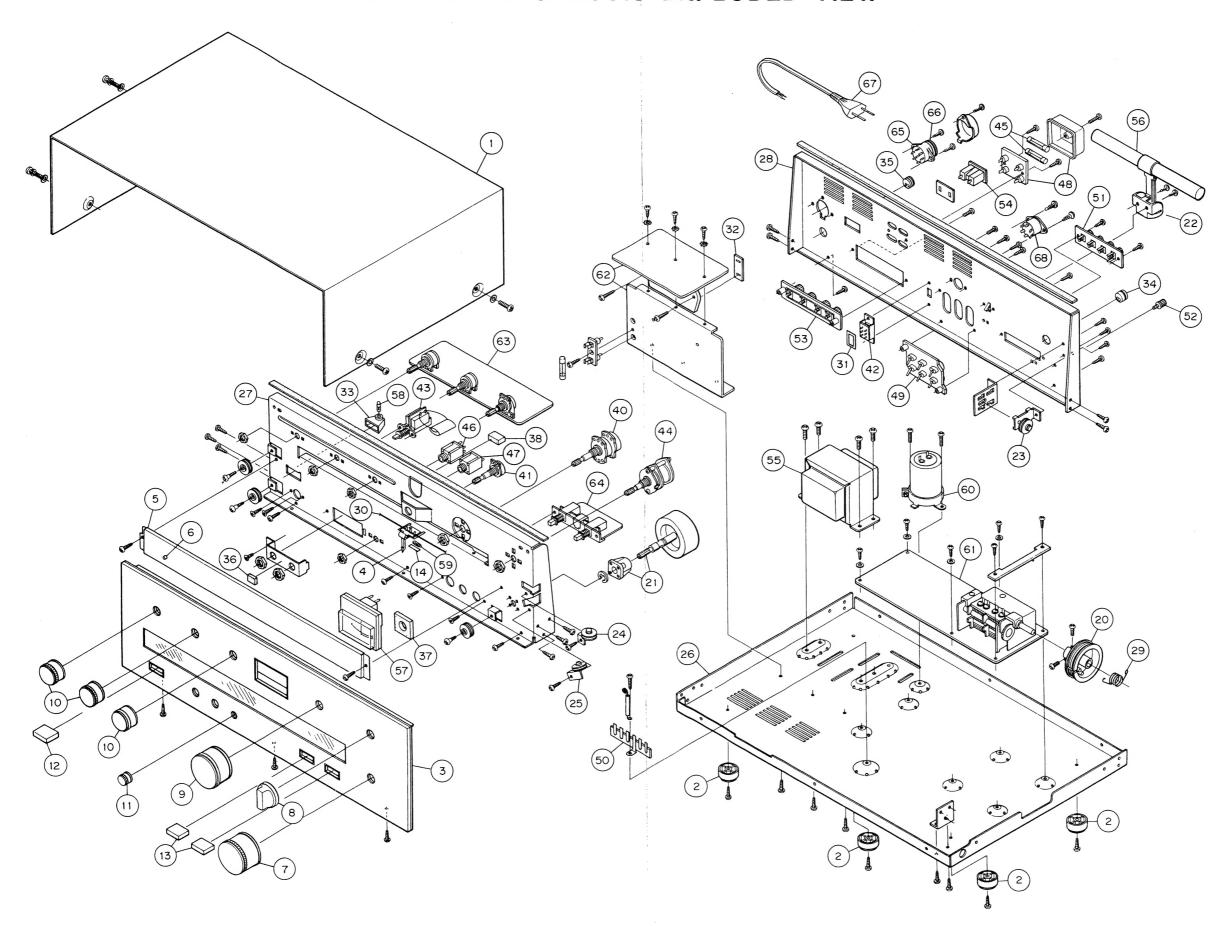
Parts Number	Descript	tion	Q'ty	Ref.No.	Parts Number	Description	Q'ty
PRE TONE P.C.	B. ASSY			MA	IN AMP & POW	ER SUPPLY P.C.B. ASSY	
4 2229 25420 4 2229 25440	VR 200k, Balance VR 50k-A, Treble		1 1 1 1		4 2349 20210 4 2349 21640	Fuse 1.0AT (110V/120V) Fuse 0.5AT (220V/240V)	1 1 1
CAPACITORS					CAPACITORS		L
C1CUBX 105A C1CRB-105A C1HCSK820SL C1HCSK271SL C1HCSK470SL C1EUBM105A C1HFRM473A C1HCSK180SL C1CRB-105A C1EUBM105A C1HFRM152A C1HFRM103A	Alsicon 1 µF Electrolytic 1 µF Ceramic 82 pF Ceramic 270 pF Ceramic 47 pF Alsicon 1 µF Mylar 0.047 µF Ceramic 18 pF Electrolytic 1 µF Alsicon 1 µF Mylar 0.0015 µF Mylar 0.001 µF	16V 50V ±10% 50V ±10% 50V ±10% 25V ±20% 50V ±20% 50V ±10% 16V 50V ±20% 50V ±20% 50V ±20%	2 2 2 2 2 2 2 2 4	C01,02 C03,04 C05,06 C07,08 C09,10 C11,12 C13 C14,15 C16 C17 C18	C1HYSK471R C1HFAM473A C1VRB-106A C1ERB-476A C1ERB-227A C1VRB-108A C1HRB-477A C2HYSP103A C1CRB-477A C1ERB-447A C1HRB-105A	Electrolytic 470 µF 16V Electrolytic 470 µF 25V Electrolytic 1 µF 50V	2 2 2 2 2 2 1 2 1 1
C1CUBX105A C1HYSK102R C1HCSK331SL C1EUBM474A	Alsicon 1 μF Ceramic 0.001 μF Ceramic 330 pF	16V +40,-20% 50V ±10% 50V ±10%	1 1 1	D01,02 D03 IC1		Diode 10D 1 Zener Diode RD 13 F Power IC STK-437	2 1 1
C1VRB-477A			1	ļ	RESISTORS		
203 5 5151 57170	r		6	C03,04 R05,06 R07,08 R09,10 R11,12	R2EDSJ224A R2EDSJ394A R2EDSJ224A R2EDSJ123A R2EDSJ121A	Carbon 220k 1/4W ±5% Carbon 390k 1/4W ±5% Carbon 220k 1/4W ±5% Carbon 12k 1/4W ±5% Carbon 120 1/4W ±5%	2 2 2 2 2 2 2
R2EDSJ273A R2EDSJ824A R2EDSJ184A R2EDSJ824A R2EDSJ474A	Carbon 27k Carbon 820k Carbon 180k Carbon 820k Carbon 470k	1/4W ±5% 1/4W ±5% 1/4W ±5% 1/4W ±5% 1/4W ±5%	2 2 2 2 2 2	R15,16 R17 R18 R19 R20 R21	R2EDSJ330A R3WXPK221A R3AXPK680A R3DXPK561A R3AXPK221A R2HZPK680A	Carbon 33 1/4W ±5% Oxide Metal Film 220 3W ±10% Oxide Metal Film 68 1W ±10% Oxide Metal Film 560 2W ±10% Oxide Metal Film 220 1W ±10% Fuse 68 1/2W ±10%	2 1 1 1 1 1 1
R2EDSJ104A	Carbon 100k	1/4W ±5% 1/4W ±5%	2 2		LOUDNESS, TA	APE, SW, P.C.B. ASSY	
R2EDSJ122A R2EDSJ474A R2EDSJ684A	Carbon 470k	1/4W ±5%	2				1
R2EDSJ394A R2EDSJ153A	Carbon 390k Carbon 15k	1/4W ±5% 1/4W ±5%	2 2		CAPACITORS	I	
R2EDSJ124A R2EDSJ821A R2EDSJ153A	Carbon 120k Carbon 820 Carbon 15k	1/4W ±5% 1/4W ±5% 1/4W ±5%	2	C01,02 C03,04	C1HFRM103A C1HYSK471R	Mylar 0.01 μF 50V ±20% Ceramic 470 pF 50V ±10%	2 2
R2EDSJ123A R2EDSJ272A	Carbon 12k Carbon 2.7k	1/4W ±5% 1/4W ±5%	2 2		RESISTORS		
R2EDSJ102A R2EDSJ154A R2EDSJ471A R2EDSJ224A R2EDSJ273A R2EDSJ332A R2EDSJ471A R2HXPK152A	Carbon 150k Carbon 470 Carbon 220k Carbon 27k Carbon 3.3k Carbon 470	1/4W ±5% 1/4W ±5% 1/4W ±5% 1/4W ±5% 1/4W ±5% 1/4W ±5% 1/4W ±5% 1.5k 1/2W ±10%	1 1 1 1 1 1 1 1 1	R01,02 R03,04 R05,06 R07,08	R2EDSJ563A R2EDSJ273A R2EDSJ153A R2EDSJ273A	Carbon 56k 1/4W ±5% Carbon 27k 1/4W ±5% Carbon 15k 1/4W ±5% Carbon 27k 1/4W ±5%	2 2 2 2
	131 0 4001 72330 4 2229 25440 4 2229 25440 4 2229 25440 4 2229 25440 CAPACITORS  C1CUBX105A C1CRB-105A C1HCSK820SL C1HCSK271SL C1HCSK470SL C1EUBM105A C1HFRM473A C1HCSK180SL C1CRB-105A C1HFRM152A C1HFRM152A C1HFRM152A C1HFRM152A C1HFRM73A C1HCSK331SL C1EUBM105A C1HFRM683A C1CUBX105A C1HFRM683A C1CUBX105A C1HFRM75A C1HFRM103A  C1HFRM683A C1CUBX105A C1HFRM152A C1HFRM103A  C1HFRM683A C1CUBX105A C1HFRM152A C1HFRM103A  C1HFRM683A C1CUBX105A C1HFRM152A C1HFRM152A C1HFRM152A C1HFRM152A C1HFRM152A C1HFRM152A C1HFRM152A C1HFRM15A	4 2229 25440 4 2229 25440 4 2229 25440 VR 50k-A, Treble VR 50k-A, Bass  CAPACITORS  C1CUBX105A C1CRB-105A C1HCSK820SL C1HCSK271SL C1HCSK470SL C1HCSK180SL C1HCSK180SL C1HCSK180SL C1HCBM105A C1HFRM152A C1HFRM152A C1HFRM152A C1HFRM152A C1HFRM152A C1HYSK102R C1HCSK331SL C1CUBX105A C1HYSK102R C1HCSK331SL C1EUBM474A C1VRB-477A  C1EUBM474A C1VRB-477A  C1VRB-477A  C203 5 5151 57170  C2ramic 12 μF C2ramic 18 pF Electrolytic 1 μF Alsicon 1 μF Mylar 0.047 μF C2ramic 300 pF Alsicon 1 μF C2ramic 47 pF C2ramic 300 pF Alsicon 1 μF C2ramic 300 pF Alsicon 1 μF C2ramic 47 pF C2ramic 32	131 0 4001 72330	131 0 4001 72330	131 0 4001 72330	131 0 4001 72330	1310 4001 193401   Main AMP & Per Supply P.C.B. Assy 4 2229 25400   VR 300k, Balance   1   1   1   1   1   1   1   1   1

## SCHEMATIC DIAGRAM



be modified without notice.

# CABINET & CHASSIS EXPLODED VIEW



## PARTS LIST

Ref.No.	Parts Number	Description	Q'ty	R
	PACKING PART	TS LIST		Γ
	131 6 1139 60801	Box Corrugate-EXP	1	
	131 6 2119 01440 131 0 6001 03400	Bag Polyethylene-EXP Pad Assy (Right, Left)	1 2	9
	ACCESSORIES	PARTS LIST		0
	4 2449 20230	Antenna FM	1	
	131 6 4119 63901	Explanatory Booklet	1	
	CABINET PART	S LIST		
1 2	131 2 1410 15000		1 4	
	131 2 1801 13300	Leg (Plate Bottom)	4	,
	APPEARANCE	PARISLISI		
3 4	131 0 1016 22801 131 0 3011 16600	Panel Decorate Assy Pointer Assy	1	
5	131 2 1201 28301	Plate Dial	1	
6	131 2 1504 10902	Plate Sign Lamp	1	
7	131 0 1001 36901	Knob Assy (Tuning)	1	
8	131 0 1001 37301 131 0 1001 37001	Knob Assy (Volume)	1	
9 10	131 0 1001 37001	Knob Assy (Volume) Knob Assy (Balance, Tone)	3	П
11	131 0 1001 37101	Knob Assy (MIC Volume)	1	
12	131 2 1601 40201	Knob (Power Switch)	1	Ш
13	131 2 1601 40302	Knob (Loudness, Tape Momitor)	2	П
14	131 2 6308 16400	Filter	1	
	CHASSIS PART	S LIST		
20	131 0 3002 11300		1	N
21 22	131 0 3003 19200 131 0 3008 11900	Shaft Dial Assy Support Antenna Assy	1	1.
23	131 0 3020 05800	Pulley Assy (Panel Rear)	i	2.
24	131 0 3020 07100	Pulley Assy (Upper Side)	1	
25	131 0 3020 07200	Pulley Assy (Under Side)	1	1
26	131 2 1105 17600	Plate Bottom	1	
27	131 2 3305 20200		1 1	
28 29	131 2 3306 22402 131 2 4111 00400		1 1	1
30	131 2 4111 00400	1 -1 - 5	'	
31	131 2 6107 11600		1	l
32	131 2 6107 19300		1	
33	131 2 6111 11500		1	l
34	131 2 6111 14200		1	
35	131 2 6111 14200		1	
36 37	131 2 4208 17800	Spacer (MIC) Spacer (Tuning Meter)	1	1
38		Spacer (Dial Panel)	1	
	ELECTRICAL I	PARTS LIST		
40	4 2229 25430			
41	4 2229 25450		1	
42 43	4 2319 22520 4 2319 23910		1	
44	4 2319 34110		1	1
45	4 2349 20850		2	1
46	4 2359 21670		1	1
47	4 2359 21910		1	1
48 49	4 2359 22030 4 2359 22920		1 1	1
50	4 2379 20480		1	
51	4 2379 21460		1	
52	4 2379 21650		1	
53	1	Terminal 4P (Speaker)	1	
54	4 2359 21960		1	1
55 56		Power Transformer Bar Antenna AM	1	1
. 20	4 2579 25050		1	1
	4 5 1 19 20662	' I Meter Tuning	1 1	
57 58	4 5119 20662 4 6129 20263		1	

Ref.No.	Parts Number	Description	Q'ty
	ELECTRICAL P	ARTS LIST	_
C01 60C02 C03 C04 R01 R02 R04 R05 R07,08 61 62 63 64 65 66 67 68	131 0 4001 70512 131 0 4001 93401 131 0 4001 72330 131 0 4001 72340 4 2359 21221	Power Select Socket Power Select Plug Power Cord	1

#### NOTE:

Part orders must contain Model Number, Part Number and Description
 Ordering quantity of screws and/or resistors must be multiple of 10 pcs